

REMARKS

Claims 1-45 are pending in this application. Claims 1, 11, 19 and 44 have been amended, claims 46-47 have been added and claims 6 and 45 have been canceled without prejudice by the present Amendment. Claims 29-43 have been withdrawn from consideration without prejudice pursuant to 37 C.F.R. § 1.142(b), as being drawn to a nonelected invention. Amended claims 1, 11, 19 and 44 and new claims 46-47 do not introduce any new subject matter.

ALLOWABLE SUBJECT MATTER

Applicants note that claims 19-28 have been allowed and that claim 6 includes allowable subject matter.

The Examiner objects to claim 6 as being dependent upon a rejected base claim, and indicates that claim 6 would be allowable if rewritten in independent form including all of the limitations of the base and any intervening claims.

In response to the Examiner's objection, Applicants have canceled claim 6, and have rewritten independent claim 1 to incorporate the allowable subject matter of claim 6.

Therefore, Applicants respectfully submit that, for at least the reason of the amendment to independent claim 1, claim 1 and claims 2-5 and 7-10 dependent thereon are in condition for allowance.

REJECTIONS UNDER 35 U.S.C. § 102

Reconsideration is respectfully requested of the rejection of claims 11-17 and 44 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,593,185 ("Tsai").

"A claim is anticipated only if each and every element as set forth in the claim is

found, either expressly or inherently described, in a single prior art reference.” Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987). “The identical invention must be shown in as complete detail as is contained in the . . . claim.” Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 U.S.P.Q.2d 1913, 1920 (Fed. Cir. 1989); M.P.E.P. § 2131.

Applicants respectfully submit that claim 15 is not anticipated by Tsai and that claims 11 and 44 as amended are not anticipated by Tsai.

Claim 15 is not anticipated by Tsai. The Examiner maintains that claim 15 is anticipated by Tsai and states that Figs. 7-8 of Tsai show patterning the second metal layer. Applicants respectfully disagree with the Examiner and submit that the limitations of claim 15 are not anticipated by Tsai.

Claim 15 states that the second metal layer is patterned to form a first plate over the first via and a second plate over the second via. Tsai does not disclose or suggest the patterning of a metal layer to form first and second plates over the first and second vias. Tsai shows a second metal layer 50 filling inverse U-type openings over what the Examiner refers to the first via (26). See Tsai, col. 5, lines 40-47 and Figs. 3, 7-8; March 27, 2004 Office Action at 3. However, the metal layer 50 is not patterned to form a plate over what the Examiner refers to as the second via (24/22). Indeed, as shown in Fig. 8, the metal layer 50 is completely removed from the area over what the Examiner refers to as the second via (24/22). Therefore, in contrast to the Examiner’s assertion, Tsai does not disclose the patterning of the second metal layer to form first and second plates over respective first and second vias, as recited in claim 15. This feature is neither expressly nor inherently disclosed or suggested in the cited reference.

As such, Applicants respectfully submit that claim 15 is not anticipated by Tsai and respectfully request that the Examiner withdraw his rejection of same.

Claim 11 has been amended to state that depositing a second metal layer over the first and second vias occurs after selectively removing the predetermined portion of the dielectric layer. In contrast, Tsai shows a metal layer 50 deposited on a liner layer 48, wherein polishing of the metal layer 50 results in removal of portions of the liner layer 48 and a blanket insulator layer 46. Therefore, Tsai uses the metal layer to remove part of the blanket insulator layer. In contrast, in the embodiment as defined in claim 11, selective removal of a dielectric layer occurs prior to deposition of the second metal layer. Accordingly, claim 11 is not anticipated by the cited reference. Indeed, Tsai teaches away from such a process.

Claims 12-17 depend from claim 11 which, for the reasons stated hereinabove, is submitted not to be anticipated by the cited reference. For at least those very same reasons, claims 12-17 are also submitted not to be anticipated by the cited reference.

Claim 44 has been amended to recite the steps of depositing a sidewall liner material in the first and second vias, and removing a predetermined portion of the sidewall liner material to form spacers on each sidewall of the first and second vias. These steps are neither expressly nor inherently disclosed or suggested in Tsai. Therefore, Applicants respectfully submit that claim 44 is not anticipated by Tsai.

Accordingly, Applicants respectfully request that the Examiner withdraw his rejection of claims 11-17 and 44 under 35 U.S.C. § 102(e).

Reconsideration is respectfully requested of the rejection of claim 44 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,789,303 ("Leung"), claim 45

having been canceled.

Applicants respectfully submit that claim 44 as amended is not anticipated by Leung. Leung does not disclose or suggest the steps of depositing a sidewall liner material in the first and second vias, and removing a predetermined portion of the sidewall liner material to form spacers on each sidewall of the first and second vias, as recited in claim 44. These features are neither expressly nor inherently disclosed or suggested in the cited reference.

Therefore, Applicants respectfully submit that claim 44 is not anticipated by Leung and respectfully request that the Examiner withdraw his rejection of claim 44 under 35 U.S.C. § 102(b).

REJECTIONS UNDER 35 U.S.C. § 103(a)

Reconsideration is respectfully requested of the rejection of (1) claims 1-5 and 7-9 under 35 U.S.C. § 103(a) as being unpatentable over Leung in view of U.S. Patent Application No. 2002/0155626 ("Park"); and (2) claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Leung and Park as applied to claims 1-5 and 7-9 and further in view of U.S. Patent No. 5,926,359 ("Greco").

Applicants respectfully submit that for at least the reason that independent claim 1 has been amended by the present Amendment to incorporate the allowable subject matter of claim 6, claim 1 and claims 2-5 and 7-10 dependent thereon are patentable over the cited references.

Applicants respectfully submit that an embodiment of the invention as defined in amended claim 1 is patentable over the cited references. For at least the reason that claims 2-5 and 7-10 depend from claim 1, claims 2-5 and 7-10 are also submitted to be

patentably distinct over the cited references. As such, Applicants request that the Examiner withdraw the rejection of claims 1-5 and 7-10 under 35 U.S.C. §103(a).

Reconsideration is respectfully requested of the rejection of claim 18 under 35 U.S.C. § 103(a) as being unpatentable over Tsai in view of Park. Applicants respectfully submit that for at least the reason of the amendment to independent claim 11, claim 18 dependent thereon is patentable over the cited references.

Applicants respectfully submit that Tsai, when taken alone or in combination with Park, fails to teach or suggest depositing a second metal layer over the first and second vias after selectively removing the predetermined portion of the dielectric layer, as recited in amended claim 11.

As stated above, Tsai teaches away from this process. Further, Park does not disclose selective removal of a portion of the dielectric layer. Indeed, as pointed out by the Examiner, Park discloses selective application of a dielectric layer using a mask, not selective removal.

Therefore, it is respectfully submitted that the cited references, when taken alone or in combination, do not disclose or suggest deposition of a second metal layer over the first and second vias after selective removal of the predetermined portion of the dielectric layer, as defined in newly amended claim 11. It is respectfully submitted that it would not have been obvious to modify Tsai, in view of Park, to develop the process of the embodiment recited in claim 11.

Applicants respectfully submit that the embodiment of the invention as defined in amended claim 11 is patentable over Tsai, in view of Park. For at least the reason that claim 18 depends from claim 11, claim 18 is also submitted to be patentably distinct

over the cited references. As such, Applicants request that the Examiner withdraw his rejection of claim 18 under 35 U.S.C. §103(a).

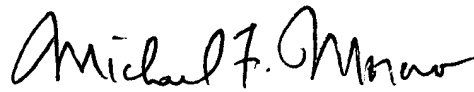
NEW CLAIMS 46-47

Applicants respectfully request that the Examiner accept and allow new claims 46 and 47. None of the cited references, when taken alone or in combination, disclose or suggest depositing another mask, wherein selective removal of the predetermined portion of the dielectric layer occurs in an area not covered by the other mask, as recited in new claim 46, nor do they disclose or suggest the method for fabricating a metal-insulator-metal capacitor, as recited in new claim 47.

Therefore, it is respectfully submitted that new claims 46 and 47 are patentable over the cited references and that new claims 46 and 47 are in condition for allowance.

An early and favorable reconsideration is earnestly solicited. If the Examiner has any further questions or comments, it is suggested that the Examiner telephone Applicants' Attorney to reach a prompt disposition of this application.

Respectfully submitted,



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